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Filed 6/23/2003
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In the claims

1.   (currently amended) A method for modeling accesses of a streaming media file, the
method comprising:

        determining, for a time interval of interest, at least one unique segment of a streaming
media file accessed during said time interval of interest by at least one client; and

        creating a data structure representing the determined at least one unique segment of said
streaming media file, the data structure created as a segment-based data structure having at least
one data structure segment corresponding to the at least one unique segment of said streaming
media file.

2.   (original) The method of claim 1 wherein each of said at least one unique segment
comprises a sequential portion of said streaming media file.

3.   (original) The method of claim 2 wherein said data structure includes a timestamp for
each of said at least one unique segment that identifies a time corresponding to a most recent
access of said sequential portion.

4.   (original) The method of claim 1 wherein said data structure includes corresponding
timestamp of access for each of said at least one segment.

5.   (original) The method of claim 1 wherein said determining at least one unique segment
comprises:

        determining if multiple accesses were made to said streaming media file during said time
interval of interest; and

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if multiple accesses were made to said streaming media file during said time interval of interest, then determining from the multiple accesses said at least one unique segment of said streaming media file.

6.   (original) The method of claim 1 wherein said determining at least one unique segment comprises:

identifying, for said time interval of interest, at least one request received at a server for accessing said streaming media file;

for each of said at least one request, determining a segment of said streaming media file accessed during the time interval of interest; and

if multiple requests are identified for said streaming media file during said time interval of interest, then determining, from the determined segments of said streaming media file accessed by each of said multiple requests, said at least one unique segment of said streaming media file that was most recently accessed within said time interval of interest.

7.   (original) The method of claim 6 wherein said determining said at least one unique segment comprises:

if multiple requests are identified, performing segment subtraction between the determined segments of said streaming media file accessed by the multiple requests.

8.   (original) The method of claim 1 further comprising:

determining from said data structure content of memory of a server from which the streaming media file was served.

9.   (original) A method for modeling accesses of a streaming file from a server, the method comprising:

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identifying, for a time interval of interest, at least one request received at a server for accessing a streaming file;

for each of said at least one request, determining a segment of said streaming file accessed during the time interval of interest; and

if multiple requests are identified for said streaming file during said time interval of interest, then determining, from the determined segments of said streaming file accessed by each of said multiple requests, at least one unique segment of said streaming file that was most recently accessed within said time interval of interest.

10.   (original) The method of claim 9 wherein said determining at least one unique segment of said streaming file that was most recently accessed within said time interval of interest comprises:

performing a segment subtraction operation between the determined segments of said streaming file accessed by each of said multiple requests.

11.   (original) The method of claim 9 further comprising:

creating a data structure representing the determined at least one unique segment of said streaming file that was most recently accessed within said time interval of interest.

12.   (original) The method of claim 11 further comprising:

maintaining said data structure for a plurality of streaming files available on said server.

13.   (original) The method of claim 9 further comprising:

determining corresponding timestamp of a most recent access during said time interval of interest of each of said determined at least one unique segment of said streaming file.

14.   (original) The method of claim 13 further comprising:

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creating a data structure representing the determined at least one unique segment of said streaming file, wherein said data structure associates each of the at least one unique segment of said streaming file with its corresponding timestamp of its most recent access during said time interval of interest.

15.   (original) The method of claim 9 further comprising:

for each of a plurality of streaming files available from said server

(a) identifying, for said time interval of interest, at least one request received at said server for accessing the streaming file,

(b) for each of said at least one request, determining a segment of the streaming file accessed during the time interval of interest, and

(c) if multiple requests are identified for the streaming file during said time interval of interest, then determining, from the determined segments of the streaming file accessed by each of those multiple requests, at least one unique segment of the streaming file that was most recently accessed within said time interval of interest.

16.   (original) The method of claim 9 further comprising:

if only one request is identified for said streaming file during said time interval of interest, then determining a segment of said streaming file accessed by said one request as being a unique segment of said streaming file that was most recently accessed within said time interval of interest.

17.   (currently amended) A system comprising:

a media server ~~operable~~ to serve at least one streaming file to clients communicatively coupled thereto; and

access modeling logic ~~operable~~ to create a data structure for modeling accesses of said at least one streaming file during a time interval of interest by at least one of said clients, wherein

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said data structure includes, for each of said at least one streaming file accessed during said time interval of interest, information identifying at least one unique segment of the streaming file and information identifying a timestamp for each of said at least one unique segment corresponding to the most recent access of the segment during said time interval of interest.

18.   (currently amended) The system of claim 17 wherein said access modeling logic is ~~operable~~ to:

(a) identify, for said time interval of interest, at least one request received at said media server from a client for accessing one of said at least one streaming file,

(b) determining, for each of said at least one request received at said media server, a segment of said streaming file accessed by the request, and

(c) if multiple requests are identified for said streaming file during said time interval of interest, then determining, from the determined segments of said streaming file accessed by each of said multiple requests, said at least one unique segment of said streaming file.

19.   (currently amended) The system of claim 18 wherein said access modeling logic is further ~~operable~~ to determine corresponding timestamp of the most recent access of each of said determined at least one unique segment of said streaming file.

20.   (currently amended) The system of claim 17 wherein said access modeling logic is further ~~operable~~ to maintain said data structure for a plurality of streaming files available on said media server.

21.   (currently amended) The system of claim 17 wherein said access modeling logic is further ~~operable~~ to:

for each of a plurality of streaming files available from said media server

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(a) identify, for said time interval of interest, at least one request received from a client at said media server for accessing the streaming file,

(b) for each of said at least one request, determine a segment of the streaming file accessed by such request, and

(c) if multiple requests are identified for the streaming file during said time interval of interest, then determine, from the determined segments of the streaming file accessed by each of those multiple requests, at least one unique segment of the streaming file that was most recently accessed within said time interval of interest.

22.   (original) The system of claim 17 wherein each of said at least one unique segment comprises a sequential portion of the streaming file.

23.   (original) The system of claim 17 wherein said access modeling logic comprises software code stored to a computer-readable medium.

24.   (original) Computer-executable software code stored to a computer-readable medium, the computer-executable software code comprising:

code for identifying, for a time interval of interest, at least one request received at a server for accessing a streaming file;

code for determining, for each of said at least one request, a segment of said streaming file accessed during the time interval of interest; and

code for determining, if multiple requests are identified for said streaming file during said time interval of interest, at least one unique segment of said streaming file that was most recently accessed within said time interval of interest.

25.   (original) The computer-executable software code of claim 24 further comprising:

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code for identifying whether multiple requests were made for said streaming file during said time interval of interest.

26. (original) The computer-executable software code of claim 25 wherein if only one request is identified for said streaming file during said time interval of interest, then said code for determining at least one unique segment of said streaming file determining a segment of said streaming file accessed by said one request as being a unique segment of said streaming file that was most recently accessed within said time interval of interest.

27. (original) The computer-executable software code of claim 24 wherein said code for determining at least one unique segment comprises:

code for determining the at least one unique segment from the determined segments of said streaming file accessed by each of said multiple requests.

28. (original) The computer-executable software code of claim 24 wherein said code for determining at least one unique segment comprises:

code for performing segment subtraction between said multiple requests identified for said streaming file.

29. (currently amended) A method of modeling streaming file accesses, said method comprising:

creating a segment-based data structure modeling streaming file accesses, wherein the data structure for a streaming file comprises

(a) identification of at least one unique segment of the streaming file that was accessed by at least one client of a media server, and

(b) identification of a corresponding timestamp of a most recent access of each of said at least one unique segment,

wherein said creating a segment-based data structure comprises:

determining all segments of said streaming file accessed by clients of a server during a time interval of interest;

determining corresponding timestamps of accesses of each segment; and

determining a most recent access of each segment.

30.-32. (cancelled)